

## ABSTRACT OF THE DISCLOSURE

A communications system multiplexes voice communications signals onto one or more transport level connections established through a packetized network, such as the Internet. The invention supports the use of variable-length packets and accommodates variable jitter. The system conforms to real time protocol (RTP) and employs internet telephone gateways (ITGs) to bind users to channel identifiers, to indicate payload type and length, to provide channel identification and time stamps, and to indicate cessation and resumption of voice traffic from a particular user through use of, for example, marker bits.